



## Claims

1-4."canceled".

5."new". A transistor comprising elements of a bipolar static induction transistor on both sides of a lightly doped silicon monocrystal substrate having a donor concentration of about  $10^{14} \text{ cm}^{-3}$ :

an epitaxial layer of the same type of conductivity having a impurity concentration of about  $10^{17} \text{ cm}^{-3}$  is disposed on both sides said substrate; a gate, a source and a normally-off channel are disposed in said epitaxial layer on both sides said substrate.

6."new". The transistor according to claim 5 wherein a layer of a doped n+-type polysilicon is disposed on the silicon monocrystal surface on both sides of said substrate.

7."new". A transistor comprising elements of a bipolar static induction transistor on both sides of a lightly doped silicon monocrystal substrate having a donor concentration of about  $10^{14} \text{ cm}^{-3}$ :

an epitaxial layer of the same type of conductivity having a impurity concentration of about  $10^{17} \text{ cm}^{-3}$  is disposed on both sides said substrate;

a gate, sources and channels are disposed in said epitaxial layer on both sides said substrate;

one channel of a multielement structure is thicker than the other normally-off channels on both sides of said substrate.

8."new". The transistor according to claim 7 wherein a layer of a doped n+-type polysilicon is disposed on the silicon monocrystal surface on both sides of said substrate.

9."new". A transistor comprising elements of a bipolar static induction transistor on both sides of a lightly doped silicon monocrystal substrate having a donor concentration of about  $10^{14} \text{ cm}^{-3}$ :

an epitaxial layer of the same type of conductivity having a impurity concentration of about  $10^{17} \text{ cm}^{-3}$  is disposed on both sides said substrate;

a gate, sources and channels are disposed in said epitaxial layer on both sides said substrate;

one channel of a multielement structure is thicker than the other normally-off channels on both sides of said substrate;

said channel is connected to a separate electrode on both sides of said substrate.

10."new". The transistor according to claim 9 wherein a layer of a doped n+-type polysilicon is disposed on the silicon monocrystal surface on both sides of said substrate.

AUTHOR:

*Eg*  
10.20.2004

EDLIN S.D.

## Claims

1-4."canceled".

5."new". A transistor comprising elements of a bipolar static induction transistor on both sides of a lightly doped silicon monocrystal substrate having a donor concentration of about  $10^{14} \text{ cm}^{-3}$ :

an epitaxial layer of the same type of conductivity having a impurity concentration of about  $10^{17} \text{ cm}^{-3}$  is disposed on both sides said substrate;  
a gate, a source and a normally-off channel are disposed in said epitaxial layer on both sides said substrate.

6."new. The transistor according to claim 5 wherein a layer of a doped n+-type polysilicon is disposed on the silicon monocrystal surface on both sides of said substrate.

7."new". A transistor comprising elements of a bipolar static induction transistor on both sides of a lightly doped silicon monocrystal substrate having a donor concentration of about  $10^{14} \text{ cm}^{-3}$ :

an epitaxial layer of the same type of conductivity having a impurity concentration of about  $10^{17} \text{ cm}^{-3}$  is disposed on both sides said substrate;  
a gate, sources and channels are disposed in said epitaxial layer on both sides said substrate;

one channel of a multielement structure is thicker than the other normally-off channels on both sides of said substrate.

8."new. The transistor according to claim 7 wherein a layer of a doped n+-type polysilicon is disposed on the silicon monocrystal surface on both sides of said substrate.

9."new". A transistor comprising elements of a bipolar static induction transistor on both sides of a lightly doped silicon monocrystal substrate having a donor concentration of about  $10^{14} \text{ cm}^{-3}$ :

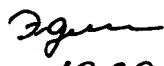
an epitaxial layer of the same type of conductivity having a impurity concentration of about  $10^{17} \text{ cm}^{-3}$  is disposed on both sides said substrate;  
a gate, sources and channels are disposed in said epitaxial layer on both sides said substrate;

one channel of a multielement structure is thicker than the other normally-off channels on both sides of said substrate;

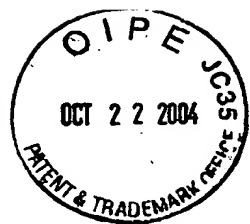
said channel is connected to a separate electrode on both sides of said substrate.

10."new. The transistor according to claim 9 wherein a layer of a doped n+-type polysilicon is disposed on the silicon monocrystal surface on both sides of said substrate.

AUTHOR:

  
10.20.2004

EDLIN S.D.



## Claims

1-4."canceled".

5."new". A transistor comprising elements of a bipolar static induction transistor on both sides of a lightly doped silicon monocrystal substrate having a donor concentration of about  $10^{14} \text{ cm}^{-3}$ :

an epitaxial layer of the same type of conductivity having a impurity concentration of about  $10^{17} \text{ cm}^{-3}$  is disposed on both sides said substrate;

a gate, a source and a normally-off channel are disposed in said epitaxial layer on both sides said substrate.

6."new". The transistor according to claim 5 wherein a layer of a doped n+-type polysilicon is disposed on the silicon monocrystal surface on both sides of said substrate.

7."new". A transistor comprising elements of a bipolar static induction transistor on both sides of a lightly doped silicon monocrystal substrate having a donor concentration of about  $10^{14} \text{ cm}^{-3}$ :

an epitaxial layer of the same type of conductivity having a impurity concentration of about  $10^{17} \text{ cm}^{-3}$  is disposed on both sides said substrate;

a gate, sources and channels are disposed in said epitaxial layer on both sides said substrate;

one channel of a multielement structure is thicker than the other normally-off channels on both sides of said substrate.

8."new". The transistor according to claim 7 wherein a layer of a doped n+-type polysilicon is disposed on the silicon monocrystal surface on both sides of said substrate.

9."new". A transistor comprising elements of a bipolar static induction transistor on both sides of a lightly doped silicon monocrystal substrate having a donor concentration of about  $10^{14} \text{ cm}^{-3}$ :

an epitaxial layer of the same type of conductivity having a impurity concentration of about  $10^{17} \text{ cm}^{-3}$  is disposed on both sides said substrate;

a gate, sources and channels are disposed in said epitaxial layer on both sides said substrate;

one channel of a multielement structure is thicker than the other normally-off channels on both sides of said substrate;

said channel is connected to a separate electrode on both sides of said substrate.

10."new". The transistor according to claim 9 wherein a layer of a doped n+-type polysilicon is disposed on the silicon monocrystal surface on both sides of said substrate.

AUTHOR:

*Edlin*  
10.20.2004

EDLIN S.D.